

RECEIVED

JUN 05 2003

TECH CENTER 1600/2900

MSK.P-031-US/NP  
PATENT APPLICATION

AMENDMENTS TO THE CLAIMS

1. (currently amended) A method for production of an autologous vaccine to tumor cells comprising transducing the tumor cells with one or more species of herpes simplex virus amplicon containing the gene for an [immunomodulatory] immunostimulatory protein and at least one additional therapeutic gene to provide transient expression of the [immunomodulatory] immunostimulatory protein and the therapeutic gene product by the cells.

2. (original) The method according to claim 1, wherein the tumor cells are transduced with the herpes simplex amplicons *ex vivo*.

3. (original) The method according to claim 1, wherein the tumor cells are transduced with the herpes simplex amplicon *in vivo*.

4. (currently amended) A method for inducing a protective immune response to tumor cells in a patient comprising the step of transducing the tumor cells with one or more species of herpes simplex virus amplicon containing the gene for an [immunomodulatory] immunostimulatory protein and at least one additional therapeutic gene to provide transient expression of the [immunomodulatory] immunostimulatory protein and the therapeutic gene product by the cells.

5. (original) The method according to claim 4, wherein the tumor cells are transduced with the amplicon *ex vivo*, further comprising the step of introducing the transduced tumor cells into the patient.

6. (original) The method according to claim 4, wherein the amplicons are injected into the site of the tumor cells *in vivo*.

1 7. (currently amended)The method according to claim 1, wherein the [immunomodulatory]  
2 immunostimulatory protein is a cytokine.

1 8. (original) The method according to claim 7, wherein the cytokine is interleukin-2.

1 9. (original) The method according to claim 7, wherein the cytokine is granulocyte  
2 macrophage colony stimulating factor.

1 10. (currently amended) The method according to claim 7, wherein the  
2 [immunomodulatory] immunostimulatory protein is a chemokine.

1 11. (original) The method according to claim 10, wherein the chemokine is RANTES.

1 12. (currently amended) The method according to claim 1, wherein the  
2 [immunomodulatory] immunostimulatory protein is an intercellular adhesion molecule.

1 13. (original) The method according to claim 12, wherein the intracellular adhesion molecule  
2 is ICAM-1.

1 14. (currently amended)The method according to claim 1, wherein the [immunomodulatory]  
2 immunostimulatory protein is a costimulatory factor.

1 15. (original) The method according to claim 14, wherein the costimulatory factor is B7.1.

1 16. (currently amended)The method according to claim 1, wherein a population of tumor cells  
2 is transduced with a plurality of species of amplicons containing the genes for the  
3 [immunomodulatory] immunostimulatory protein and the additional therapeutic gene.

- 1 17. (currently amended) The method according to claim 1, wherein the additional therapeutic  
2 gene encodes a second [immunomodulatory] immunostimulatory protein.
- 1 18. (original) The method according to any of claims 17, wherein the tumor cells are  
transduced with amplicons encoding and expressing at least two species of cytokines.
- 1 19. (original) The method according to claim 18, wherein tumor cells are transduced with  
2 amplicons containing the genes for interleukin-2 and interleukin-12.
- 1 20. (original) The method according to claim 18, wherein the tumor cells are transduced with  
2 amplicons encoding and expressing a cytokine and a costimulatory factor.
- 1 21. (original) The method according to claim 20, wherein tumor cells are transduced with  
2 amplicons containing the genes for RANTES and B7.1.
- 1 22. (previously amended) The method according to claim 1, wherein the tumor cells are  
2 hepatoma cells or lymphoma cells.
- 1 23. (currently amended) A mixture containing a plurality of species of herpes simplex virus  
2 amplicons, including at least a first species of amplicon containing the gene for at least  
3 one [immunomodulatory] immunostimulatory protein and a second species of amplicon  
4 containing the gene for an additional therapeutic gene product.
- 1 24. (currently amended) The mixture according to claim 23, wherein the [immunomodulatory]  
2 immunostimulatory protein is a cytokine.
- 1 25. (original) The mixture according to claim 24, wherein the cytokine is interleukin-2 or  
2 granulocyte macrophage colony stimulating factor.

- 1 26. (currently amended) The mixture according to claim 23, wherein the  
2 [immunomodulatory] immunostimulatory protein is a chemokine.
- 1 27. (original) The mixture according to claim 26, wherein the chemokine is RANTES.
- 1 28. (currently amended) The mixture according to claim 23, wherein the [immunomodulatory]  
2 immunostimulatory protein is a intercellular adhesion molecule.
- 1 29. (original) The mixture according to claim 28, wherein the intracellular adhesion molecule  
2 is ICAM-1.
- 1 30. (currently amended) The mixture according to claim 23, wherein the [immunomodulatory]  
2 immunostimulatory protein is a costimulatory factor.
- 1 31. (original) The mixture according to claim 30, wherein the costimulatory factor is B7.1.
- 1 32. (currently amended) The mixture according to claim 23, wherein the additional  
2 therapeutic gene encodes a second [immunomodulatory] immunostimulatory protein.
- 1 33. (previously amended) The mixture according to claim 23, wherein the first and second  
2 species of amplicons contains genes encoding for RANTES and B7.1.
- 1 34. (previously amended) The mixture according to claim 23, wherein the first and second  
species of amplicons contains genes encoding for at least two species of cytokines.
- 1 35. (original) The mixture according to claim 34, wherein the amplicons contain genes  
2 encoding for interleukin-2 and interleukin-12.

MSK.P-031-US/NP  
PATENT APPLICATION

1 36. (previously amended) Tumor cells transduced in accordance with the methods of claim 1.

1 37. (previously amended) Tumor cells transduced with a mixture of herpes simplex virus  
2 amplicons in accordance with claim 23.

1 38. (currently amended) A method for production of an autologous vaccine to tumor cells  
2 comprising transducing the tumor cells with a herpes simplex virus amplicon containing  
3 the gene for an [immunomodulatory] immunostimulatory protein to provide transient  
4 expression of the [immunomodulatory] immunostimulatory protein by the cells, wherein  
5 the [immunomodulatory] immunostimulatory protein is selected from among  
6 chemokines, intercellular adhesion molecules and costimulatory factors.

CI  
Ant

1 39. (currently amended) The method according to claim [1] 38, wherein the tumor cells are  
2 transduced with the herpes simplex amplicons *ex vivo*.

1 40. (currently amended) The method according to claim [1] 38, wherein the tumor cells are  
2 transduced with the herpes simplex cell *in vivo*.

---